

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE SPECIES FOR THE GENUS "GEOTRUPES" LATREILLE, 1796 (CLASS INSECTA, ORDER COLEOPTERA) IN HARMONY WITH CURRENT NOMENCLATORIAL USAGE

By ROBERT W. L. POTTS

(California State Department of Agriculture, San Francisco, California, U.S.A.)

(Commission's reference Z.N.(S.)338)

In checking early references to the generic name *Geotrupes* Latreille, 1796 (*Préc. Caract. gen. Ins.* : 6) (Class Insecta, Order Coleoptera) for a proposed general paper on the genus, it became apparent that the current use of this name is not in accordance with the Rules and that the strict application of those Rules would do serious violence to our current concept of this genus. It is to avoid the confusion which would so result that the International Commission on Zoological Nomenclature is now asked to use its plenary powers to designate, as the type species of this important genus, a species in harmony with current nomenclatorial practice.

The early history of the generic name *Geotrupes* may be summarised as follows :—

- (1) The generic name *Geotrupes* was first published in 1796 by Latreille. He gave a short generic diagnosis, but cited no nominal species as belonging to this genus, for which he designated no type species.
- (2) The next author to use the generic name *Geotrupes* was Fabricius, who in 1798 (*Suppl. Ent. syst.* : [1], 7-22) gave a description for the genus so named not at all parallel to that previously given by Latreille. Fabricius placed in this genus sixty-three species, most of which are now placed in the subfamily DYNASTINAE; only five of the species included by Fabricius in this genus belong to the present subfamily GEOTRUPINAE, one of these being *Scarabaeus dispar* Fabricius, 1781 (*Spec. Ins.* 1 : 5). Elsewhere in the *Suppl. Ent. syst.* (: 2, 23-24) Fabricius listed under the generic name *Scarabaeus* species which are now treated as belonging to the genus *Geotrupes*.
- (3) In 1801 (*Syst. Eleuth.* : 2-26) Fabricius added further species both to *Geotrupes* and *Scarabaeus*, still preserving his concept of the two genera.
- (4) In 1802 (*Hist. nat. gén. partic. Crust. Ins.*) Latreille listed two species under the generic name *Geotrupes*, the first of these being *Scarabaeus stercorarius* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 349).
- (5) In 1804 Latreille (*ibid.* 10 : 142-147) listed seven species in the genus *Geotrupes*; of these the first was *dispar* Fabricius and the fourth *stercorarius* Linnaeus. In his introduction to the genus Latreille complained at the way in which Fabricius had transposed the use

of the names *Geotrupes* and *Scarabacus* as used in the *Précis des Caractères* of 1796, saying: "J'avois posé les bases de ce genre *Geotrupes* dans mon ouvrage intitulé 'Précis des Caractères génériques des Insectes,' ou, pour parler plus vrais, je n'avois fait que donner un denomination à la seconde coup des scarabées d'Olivier, car ce naturaliste avait exposé tous les caractères de ce genre avant moi. Fabricius, en adoptant ce travail, a fait malheureusement une transposition de noms; mes scarabées sont devenus des geotrupes, et mes geotrupes des scarabées. Ce changement n'étant pas fondé, on me permette de n'y avoir pas égard."

The position is therefore that the name *Geotrupes* was published in 1796 for a genus for which a diagnosis was given, but for which no nominal species were cited. Accordingly, the type species of *Geotrupes* would until 1948, have had to be determined under the provisions of the Commission's *Opinion* 46, but now has to be determined under the amended and clarified provisions adopted by the International Congress of Zoology in Paris in 1948 (see 1950, *Bull. zool. Nomencl.* 4: 159-160, 346). Under those provisions the only species which are eligible for selection as the type species of a genus established without any nominal species referred thereto are those species cited by name as belonging to the genus in question on the first occasion on which any species are so cited.

In the present case therefore the only species eligible for selection as the type species of *Geotrupes* Latreille, 1796, are those cited by Fabricius in 1798, unless it could be shown that Fabricius published the name *Geotrupes* in 1798 in ignorance of the fact that the same name had been published two years earlier by Latreille for what (at that time) was regarded a closely allied group of species. If it could be established this is what happened—and a ruling from the Commission would be needed to set this question at rest—the name *Geotrupes* Fabricius, 1798, would be a new name, quite independent of (though a junior homonym of) *Geotrupes* Latreille and the species cited by Fabricius for that genus would have no bearing on the question of the species which are to be regarded as the sole originally included species of *Geotrupes* Latreille. There is however no evidence which would support such a hypothesis and it must therefore be dismissed. Another possibility that has been considered is that it really was by accident and not by intention that Fabricius used the names *Geotrupes* and *Scarabacus* in the opposite sense to that in which those names had been used by Latreille; here again there is no evidence to support such a contention. Moreover, if such evidence had been available, it would have been necessary for the Commission to use its plenary powers to secure the necessary correction, for such an error, if it had been committed could not have been corrected automatically under Article 19, which is concerned only with the correction of the spelling of names.

Thus, under the Rules the only species eligible for selection as the type species of *Geotrupes* Latreille are those cited by Fabricius as belonging to that genus. As already explained *Scarabaeus dispar* Fabricius, 1781, is the only one of the species cited by Fabricius in 1798 which was also cited by Latreille in 1804. The selection of that species, as the type species, would alone secure that the genus *Geotrupes* remained in the subfamily GEOTRUPINAE as at present understood. The selection of that species would however be

open to strong objection: First, it would involve the transfer of the name *Geotrupes* to the genus now known as *Ceratophyus* Fischer de Waldheim, 1824 (*Entomogr. Imp. russ.* 2: 143), of which *Scarabaeus dispar* Fabricius is also the type species (by selection by Jekel (1866, *Ann. Soc. ent. France* (4) 5: 522, 535)). Second, such a transfer would do violence to the concept of the genus *Geotrupes* Latreille, which for nearly one hundred and fifty years has been based upon the belief that, under the selection made by Latreille in 1810 (*Consid. gén. Crust. Arach. Ins.* : 428), the type species of this genus was *Scarabaeus stercorarius* Linnaeus, 1758.

In these circumstances I ask the International Commission on Zoological Nomenclature to use its plenary powers to prevent the confusion which would certainly arise if it were no longer possible to accept *Scarabaeus stercorarius* Linnaeus as the type species of *Geotrupes* Latreille. The specific request which I put forward is that the Commission should:—

- (1) use its plenary powers to set aside all type selections for the genus *Geotrupes* Latreille, 1796, made prior to the decision now proposed to be taken, and to designate *Scarabaeus stercorarius* Linnaeus, 1758, to be the type species of the foregoing genus;
- (2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology*:—
 - (a) *Geotrupes* Latreille, 1796 (gender of generic name: feminine) (type species, by designation, as proposed in (1) above, under the plenary powers: *Scarabaeus stercorarius* Linnaeus, 1758);
 - (b) *Ceratophyus* Fischer de Waldheim, 1824 (gender of generic name: masculine) (type species, by selection by Jekel (1866): *Scarabaeus dispar* Fabricius, 1781);
- (3) to place the under-mentioned trivial names on the *Official List of Specific Trivial Names in Zoology*:—
 - (a) *stercorarius* Linnaeus, 1758 (as published in the binominal combination *Scarabaeus dispar*) (trivial name of type species of *Geotrupes* Latreille, 1796);
 - (b) *dispar* Fabricius, 1781 (as published in the binominal combination *Scarabaeus dispar*) (trivial name of type species of *Ceratophyus* Fischer de Waldheim, 1824).